

REMARKS

This is in response to the Office Action that was mailed on May 30, 2006. A very minor typographical amendment is made to claim 7 (insertion of a comma). No new matter is introduced by this Amendment. Entry of this Amendment, in order to place the application into condition for allowance or into better condition for appeal, is earnestly solicited. Claims 1 and 5-7 remain pending in the application.

Claims 1, 5, and 6 were rejected under 35 USC § 102 as being anticipated by WO 2004/013076 A1 (Boriack). Office Action, pages 2-3. Claim 7 was rejected under 35 USC § 103 as being unpatentable over Boriack. Office Action, page 4. The cited reference discloses (only) a reaction of phenol, to make an aryl allyl ether. The present claims do not include phenol reactants. Applicants respectfully submit that the claims in their present form are neither anticipated by nor obvious from the Boriack disclosure.

The rejection as stated by the Examiner is based on the premise that “the claims recited alcohols, and phenol is clearly an alcohol”. This is manifestly not in accordance with scientific principles. It is pointed out that phenols and alcohols are two completely different types of chemical. It is true that both contain “OH” groups, but so also do carboxylic acids (COOH). Not every compound that contains an “OH” group is an alcohol. We note, for instance, that James Cason, in “Essential Principles of Organic Chemistry”, published in 1961 by Prentice-Hall, Inc. of Englewood Cliffs, New Jersey, U.S.A., indicates on page 25 that “alcohols consist of the hydroxyl group attached to an alkyl radical”, and indicates on page 324 that “phenols are weakly acidic compounds, in contrast with the alcohols”.

In accordance with the present invention, an allyl-containing compound can be easily prepared under mild conditions by reacting an allyl ester compound – Formula (1) – with an alcohol, thiol, carboxylic acid, or thiocarboxylic acid – Formula (2) – in the presence of a catalytic amount of an iridium compound. Specification, page 24, lines 12-16. More specifically, the following embodiments [A], [B], [C], and [D] can be exemplified: [A] the use of an alcohol compound as the compound of Formula (2) yields an allyl ester compound represented by Formula (3); [B] the use of a thiol compound as the compound of Formula (2) yields an allyl thioether compound of Formula (3); [C] the use of a carboxylic acid as the compound of Formula (2) yields an esterified allyl ester compound of Formula (3); and [D] the use of a thiocarboxylic acid as the compound of Formula (2) yields an esterified allyl thioester compound of Formula (3). Specification, page 25, lines 10-22. The process is highly versatile and can efficiently produce a wide variety of allyl-containing compounds. Specification, page 3, lines 19-21.

In contrast, the Boriack reference fails to disclose or suggest a process comprising the step of reacting an allyl ester compound of Formula (I) with a compound of Formula (2) selected from the group consisting of alcohols, thiols, carboxylic acids, and thiocarboxylic acids in the presence of a catalytic amount of an iridium compound. Thus the present invention cannot be constituted by the cited Boriack reference, and the effects of the present invention are not foreshadowed by the Boriack disclosure. Therefore, the present invention is not obvious within the meaning of the statute.

If there are any questions concerning this application, the Examiner is invited to contact Richard Gallagher, Registration No. 28,781, at (703) 205-8008.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

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Respectfully submitted,

RG

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